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09/855,360	05/15/2001	Ludwig Guenther	DE920000038US1	8762

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IBM CORPORATION  
IPLAW IQ0A/40-3  
1701 NORTH STREET  
ENDICOTT, NY 13760

EXAMINER
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LIN, KENNY S

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 04/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/855,360

Applicant(s)

GUENTHER ET AL.

Examiner

Kenny Lin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-20 are presented for examination.

#### ***Information Disclosure Statement***

2. The information disclosure statement filed 2/10/2005 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because at least one of the foreign non-English patent documents is not submitted with an English translation copy. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

3. Claim 18 is objected to because of the following informalities: There are two periods “..” at the end of the claim sentence. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1 5-8, 10-11, 15-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pepe et al (hereinafter Pepe), US 5,673,322, in view of Gauvin et al (hereinafter Gauvin), US 5,790,800.

6. Pepe was cited by the applicant in the IDS. Gauvin was cited in the previous office action.

7. As per claims 1 and 11, Pepe taught the invention substantially as claimed including a data communication method that compensates for disadvantageous characteristics of a first protocol that is used to communicate data between a client application and a server application, wherein the client application and the server application employ a second protocol that is mapped onto the first protocol (col.5, lines 48-61), said method comprising the acts of:

- a. Intercepting, by a local proxy acting on behalf of a server application, a second-protocol data communication request from a client application (col.5, lines 48-57, col.7, lines 17-23, 32-34, 66-67, col.8, lines 1-5, 16-25);
- b. Mapping, by the local proxy, the second-protocol data communication request onto the first protocol (col.5, lines 48-59, col.7, lines 17-31, 51-60, 66-67, col.8, lines 1-5, 16-25);
- c. Sending the communication request to a remote proxy using the first protocol (col.5, lines 48-59, col.7, lines 17-34, 66-67, col.8, lines 1-8, 16-25);

- d. Compensating a disadvantageous characteristic of the first protocol (col.9, lines 2-67, col.10, lines 1-6), said compensating comprising ascertaining that a condition exists and eliminating the condition in response to said ascertaining, said condition being a connection condition or a transmission capacity condition (col.9, lines 2-67, col.10, lines 1-6; appropriate response to failures);
- e. Mapping, by the remote proxy, the communication request back onto the second protocol to recreate substantially the second-protocol data communication request (col.5, lines 48-61, col.7, lines 34-38, col.8, lines 6-15, 26-33); and
- f. Delivering the second-protocol data communication request to the server application (col.5, lines 48-61, col.7, lines 34-38, col.8, lines 6-15, 26-33).

8. Pepe further taught that proxies can be of hardware, software or implemented on a firewall (col.7, lines 1-23). Pepe did not specifically teach that the local proxy is a client interceptor, the remote proxy is the server interceptor. Gauvin taught to use interceptors in intercepting the requests (col.2, lines 38-42, col.9, lines 5-7, col.12, lines 57-63). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Pepe and Gauvin because Gauvin's teaching of using interceptors help to implement the proxies of Pepe's method to intercept requests and establish communications (Gauvin, col.12, lines 57-63).

9. As per claims 5 and 15, Pepe and Gauvin taught the invention substantially as claimed in claims 1 and 11. Pepe further taught wherein the second protocol is connection oriented (TCP,

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col.7, lines 16-24, 32-38), and wherein the client interceptor and the server interceptor intercept a plurality of connections between the client application and the client interceptor using the second protocol (col.7, lines 32-38, 66-67, col.8, lines 1-5, 16-25), and between the server interceptor and the server application using the second protocol (col.7, lines 32-38, 66-67, col.8, lines 26-33).

10. As per claims 6 and 16, Pepe and Gauvin taught the invention substantially as claimed in claims 5 and 15. Pepe further taught wherein the plurality of connections using the second protocol are multiplexed onto a single connection of the first protocol (col.8, lines 34-43).

11. As per claims 7 and 17, Pepe and Gauvin taught the invention substantially as claimed in claims 1 and 11. Pepe further taught wherein the first protocol is a wireless communication protocol (col.6, lines 65-67, col.7, lines 32-38, col.8, lines 1-5).

12. As per claims 8 and 18, Pepe and Gauvin taught the invention substantially as claimed in claims 1 and 11. Pepe further taught to comprise the act of opening, by the client interceptor, a connection to the server interceptor using the first protocol following the act of intercepting the second-protocol data communication request (col.8, lines 16-33).

13. As per claims 10 and 20, Pepe and Gauvin taught the invention substantially as claimed in claims 1 and 11. Pepe further taught that the client application and the client interceptor reside on a same computing device (col.5, lines 48-57, col.7, lines 17-23).

14. Claims 2 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pepe and Gauvin as applied to claims 1 and 11 above, and further in view of Wils et al (hereinafter Wils), US 6,570,881.

15. Wils was cited in the previous office action.

16. As per claims 2 and 12, Pepe and Gauvin taught the invention substantially as claimed in claims 1 and 11. Pepe further taught to respond appropriately to failures in transmission paths (col.9, lines 66-67, col.10, lines 1-6). Pepe and Gauvin did not specifically teach wherein the ascertaining comprises determining loss of a connection, and wherein the eliminating comprises re-establishing the connection. Wils taught a network status determining method that detects loss of connection and re-establish of the connection (col.6, lines 36-46, col.7, lines 56-67, col.8, lines 1-4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Pepe, Gauvin and Wils because Wils' teaching of determining connection loss enables Pepe and Gauvin's method to monitor more specifically and compensate more detail on the protocol, both advantageous or disadvantageous, and re-establish the loss connections (col.6, lines 36-46, col.7, lines 56-67, col.8, lines 1-4).

17. Claims 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pepe and Gauvin as applied to claims 1 and 11 above, and further in view of Backstrom et al (hereinafter Backstrom), US 5,903,851.

18. Backstrom was cited in the previous office action.

19. As per claims 3 and 13, Pepe and Gauvin taught the invention substantially as claimed in claims 1 and 11. Gauvin further taught to establish communication when request is intercepted (col.2, lines 38-42, col.12, lines 57-63). Pepe and Gauvin did not specifically teach wherein the ascertaining comprises detecting that a connection is idle, and wherein the eliminating comprises dropping the connection and re-establishing the connection. Backstrom taught to detect idle condition, drop connection and to re-establish connection (abstract, col.3, lines 65-67, col.4, line 1, lines 32-39). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Pepe, Gauvin and Backstrom because Backstrom's teaching of determining idle period enables Pepe and Gauvin's method to monitor more specifically and compensate more detail on the protocol, both advantageous or disadvantageous, and re-establish idle connections (abstract, col.3, lines 65-67, col.4, line 1, lines 32-39).

20. Claims 4 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pepe and Gauvin as applied to claims 1 and 11 above, and further in view of van Landegem et al (hereinafter van Landegem), US 5,265,091.

21. van Landegem was cited in the previous office action.



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22. As per claims 4 and 14, Pepe and Gauvin taught the invention substantially as claimed in claims 1 and 11. Pepe further taught wherein the ascertaining comprises determining that transmission capacity is insufficient process the data communication request (col.9, lines 26-32). Pepe and Gauvin did not specifically teach wherein the ascertaining further comprises determining the transmission capacity to process the data communication request within a predetermined interval of time, and wherein the eliminating comprises establishing a parallel connection to increase transmission capacity. van Landegem taught to determine the transmission capacity with a predetermined interval of time and to establish a parallel connection to increase transmission capacity (col.12, lines 15-40, 52-63, col.14, lines 54-61). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Pepe, Gauvin and van Landegem because van Landegem's teaching of determining transmission capacity and establishing parallel connection helps Pepe and Gauvin's method to determine bandwidth availability in a periodic basis in a connectionless environment (e.g., first protocol, col.2, lines 14-19).

23. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pepe and Gauvin as applied to claim 18 above, and further in view of O'Connell et al (hereinafter O'Connell), US 6,661,787.

24. As per claim 19, Pepe and Gauvin taught the invention substantially as claimed in claim 18. Gauvin further taught to comprise the means for receiving, by the client interceptor, an identification of the server application (col.9, lines 61-67, col.10, lines 1-19). Pepe and Gauvin

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did not specifically teach a means for forwarding the identification to an address-resolution server for first-protocol address resolution. O'Connell taught to use server identification to look up the network route and destination address using address resolution protocol (col.1, lines 55-67, col.2, lines 1-6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Pepe, Gauvin and O'Connell because O'Connell's teaching of address resolution using identification to look up network address enables Pepe and Gauvin's system to identify the end station and the connection to the end station (col.1, lines 55-62).

25. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pepe et al (hereinafter Pepe), US 5,673,322, in view of Gauvin et al (hereinafter Gauvin), US 5,790,800, and O'Connell et al (hereinafter O'Connell), US 6,661,787.

26. O'Connell was cited in the previous office action.

27. As per claim 9, Pepe taught the invention substantially as claimed including a data communication method that compensates for disadvantageous characteristics of a first protocol that is used to communicate data between a client application and a server application, wherein the client application and the server application employ a second protocol that is mapped onto the first protocol (col.5, lines 48-61), said method comprising the acts of:

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- a. Intercepting, by a local proxy acting on behalf of a server application, a second-protocol data communication request from a client application (col.5, lines 48-57, col.7, lines 17-23, 32-34, 66-67, col.8, lines 1-5, 16-25);
- b. Mapping, by the local proxy, the second-protocol data communication request onto the first protocol (col.5, lines 48-59, col.7, lines 17-31, 51-60, 66-67, col.8, lines 1-5, 16-25);
- c. Sending the communication request to a remote proxy using the first protocol (col.5, lines 48-59, col.7, lines 17-34, 66-67, col.8, lines 1-8, 16-25);
- d. Compensating a disadvantageous characteristic of the first protocol (col.9, lines 2-67, col.10, lines 1-6);
- e. Mapping, by the remote proxy, the communication request back onto the second protocol to recreate substantially the second-protocol data communication request (col.5, lines 48-61, col.7, lines 34-38, col.8, lines 6-15, 26-33); and
- f. Delivering the second-protocol data communication request to the server application (col.5, lines 48-61, col.7, lines 34-38, col.8, lines 6-15, 26-33).
- g. Opening, by the local proxy, a connection to the remote proxy using the first protocol following the act of intercepting the second-protocol data communication request (col.5, lines 48-61, col.7, lines 34-38, 59-65, col.8, lines 6-33).

28. Pepe further taught that proxies can be of hardware, software or implemented on a firewall (col.7, lines 1-23). Pepe did not specifically teach that the local proxy is a client

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interceptor, the remote proxy is the server interceptor and to receive, by the client interceptor, an identification of the server application and forward the identification to an address-resolution server for first-protocol address resolution. Gauvin taught to use interceptors in intercepting the requests (col.2, lines 38-42, col.9, lines 5-7, col.12, lines 57-63) and receiving, by the client interceptor, an identification of the server application (col.9, lines 61-67, col.10, lines 1-19). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Pepe and Gauvin because Gauvin's teaching of using interceptors help to implement the proxies of Pepe's method to intercept requests and establish communications (Gauvin, col.12, lines 57-63). Pepe and Gauvin did not specifically teach to forward the identification to an address-resolution server for first-protocol address resolution. O'Connell taught to use server identification to look up the network route and destination address using address resolution protocol (col.1, lines 55-67, col.2, lines 1-6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Pepe, Gauvin and O'Connell because O'Connell's teaching of address resolution using identification to look up network address enables Pepe and Gauvin's method to identify the end station and the connection to the end station (col.1, lines 55-62).

### ***Response to Arguments***

29. Applicant's arguments filed 11/29/2004 have been fully considered but they are not persuasive.

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30. In the remark, applicant argued (1) Examiner has not supplied a legally persuasive argument to combine the teachings Wils, Backstrom or van Landegem. (2) van Landegem does not teach or suggest “determining the transmission capacity to process the data communication request within a predetermined interval of time”. (3) Gauvin does not teach “receiving, by the client interceptor, the identification of the server application.” Examiner’s argument with respect to O’Connell is an improper modification of the secondary reference of Gauvin.

31. Examiner traverse the arguments

As to point (1), in response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation is in the knowledge generally available to one of ordinary skill in the art.

As to point (2), applicant has misinterpreted the van Landegem reference. van Landegem taught specifically in column 12, lines 29-40 stating the use of predetermined interval of time in comparison with the length of the start and end period in determining the transmission capacity. van Landegem further taught in column 12, lines 14-19 that the measurement (e.g., determination of the transmission capacity) is done in a periodically basis manner. Thus, van Landegem not only taught to determine the transmission capacity with a predetermined interval

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of time, but also taught that the determination is done periodically (col.12, lines 15-40). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Pepe, Gauvin and van Landegem because van Landegem's teaching of determining transmission capacity and establishing parallel connection helps Pepe and Gauvin's method to determine bandwidth availability in a periodic basis in a connectionless environment (e.g., first protocol, col.2, lines 14-19).

As to point (3), applicant has again misinterpreted the cited reference. Gauvin taught in column 10, lines 8-10 stating that "The execution flow for performing the functions of step 810, as well as other steps 820-850, are intercepted by the interceptor 700 (e.g., client interceptor)..." and column 10, lines 15-16 that "... port and server identifications, are provided in step 820".

Therefore, the client interceptor is taught to receive the identification of the server application. receiving, by the client interceptor, an identification of the server application (col.9, lines 61-67, col.10, lines 1-19). The cited columns in Gauvin clearly taught the claimed limitation without having the need for the examiner to modify the reference. Hence, the above statements overcomes the applicant's argument regarding examiner's modification of the Gauvin reference and combination of O'Connell reference with modification of Gauvin reference.

### ***Conclusion***

32. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Musikka et al, US 2002/0015392.

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33. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


34. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenny Lin whose telephone number is (571) 272-3968. The examiner can normally be reached on 8 AM to 5 PM Tue.-Fri. and every other Monday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ksl  
March 31, 2005



**JOHN FOLLANSBEE**  
**SUPERVISORY PATENT EXAMINER**  
**BIOLOGY CENTER 2100**